

**DOE TEC Routing Topic Group Conference Call  
Thursday, June 21, 2007 10:00 a.m.-11:30 a.m. EDT**

**Conference Call Minutes**

**Chair:** Jay Jones (RW), Alex Thrower (RW)

**Participants:** Melissa Bailey (CSG-NE), Jane Beetem (MO Dept. of Natural Resources), Barbara Byron (CA Energy Commission), Kurt Colborn (MHF), Matt Dennis (SNL), Scott Field (WIEB), Dan Fisher (Public Utilities of Ohio), Josh Garcia (Ysleta del Sur Pueblo), Ralph Hail (Norfolk Southern), Bob Halstead (Nevada Agency For Nuclear Projects), Judith Holm (DOE/RW), Lisa Janairo (CSG-MW), Vernon Jensen (Winnebago Tribe of Nebraska), Paul Johnson (ORNL), Marsha Keister (INL), Sean Kice (SSEB), Mel Massaro (DOT/FRA), Christina Nelson (NCSL), Doug Osborn (SNL), Scott Palmer (BLET), Cort Richardson (CSG-NE), Larry Stern (CVSA), Sarah Wochos (CSG/MW)  
**Contractor Support:** Ralph Best (BSC), Randy Coppage (BAH), Michele Enders (SAIC), Lee Finewood (BAH), John Smegal (Legin)

**Summary:**

The conference call began at 10:00 a.m. Eastern Standard Time on Thursday, June 21, 2007. The purpose of this call was to discuss the definition of a “suite of routes” and to discuss possible topics for the topic group’s session at the DOE TEC meeting in July 2007. [Note: Jane Beetem had sent Jay via e-mail a list of proposed topic items for the topic group to discuss at TEC].

**Opening Remarks:**

**New Topic Group Lead:**

Jay Jones will be taking on a new job within OCRWM that focuses on the international component of the program. Jay will continue to lead the topic group through the TEC meeting in July. His successor will be Alex Thrower. Alex has led the topic group in the past and has a vast amount of transportation related experience.

**Task Plan Update:**

Jay commented that he would like to meet with Ralph Best and Alex Thrower to discuss future revisions to the task plan. Since Jay will be leaving the topic group, no decisions will be made on the task plan at this time until Alex is able to be involved with these discussions.

## **Items Discussed:**

### **DOE Routing Principles:**

Bob Halstead commented that he was startled by some of the statements in the DOE Routing Principles document. Bob stated that Bob Fronczak's e-mail [that was sent via e-mail to the topic group] brings up the issue that there seems to be a suggestion in the Routing Principles that in the end all routes are safe. Therefore, one does not have to pick the safest routes but rather only acceptable routes and there is no need to dictate routes to railroads. The State of Nevada's position is that some routes are safer and more secure than others, and that the guidance for regulating routes is HM-164 and 10 CFR 73.37. DOE must identify and use the safest routes, and if that involves putting them in the carriers' contract so the railroads use these routes, then that is what routing should entail. Bob feels there is a need to have a discussion of DOE's basic, philosophical approach to routing before discussing a definition of a "suite of routes."

Lisa Janairo commented that she thought Bob Fronczak's e-mail was a response to the definition of a "suite of routes" not to the Routing Principles. Bob responded that he thought Bob Fronczak's e-mail was applicable to the routing principles as well as the "suite of routes" definition. Lisa asked Bob if he was suggesting that the topic group discuss the routing principles on this call. Jay responded for Bob by saying that the purpose and focus of today's telecon is to discuss the "suite of routes" definition. Jay added he realizes that there could be some comments regarding the Routing Principles, but it would be more appropriate to discuss these at the topic group's TEC session in July.

Lisa agreed that Bob Halstead was raising a good point about the Routing Principles. Lisa added that she had some comments about Bob Fronczak's e-mail. First, Bob Fronczak seems to be objecting to the description of the routes as being safe, secure, efficient, and meriting public confidence. Both DOE's and SRG's definition referred to the shipments, not the routes, as being safe, secure, efficient and meriting public confidence. Bob Halstead commented that the State of Nevada has an issue with the fact that within a suite of routes that each of the two, three or more routes is equally safe. Within a suite of routes there are routes that are preferred and there are routes that are less preferred.

Jay commented that DOE's perspective is that all shipments will be safe. Bob stated that he is talking about routes not shipments. Routes are criteria that are embedded in the regulations of HM 164 (a population avoidance regulation). HM-164 is a problem for railroads since many of their interchange points are in highly populated areas. Lisa stated that Bob's comments are confusing since it sounds like he is saying that DOE is endorsing Bob Fronczak's e-mail. Bob stated that he was not implying that DOE agrees with Bob Fronczak's e-mail, but rather he was concerned with statements in the routing principles. Lisa commented that the suite of routes definition being linked to the routing principles is a valid point.

Bob Halstead suggested that there be a discussion scheduled possibly at TEC where the philosophical approaches to routing are discussed. Lisa stated that the philosophical approaches are embedded in the topic group's task plan. Jay agreed with Lisa about this point. Lisa suggested that the Routing Principles document be discussed by the topic

group at the TEC meeting. In that discussion, the safety principle of regulatory compliance can be addressed. Bob asked if it is just a public relations issue to put the statement in about “all shipments will be safe and no one should worry.” Jay responded that the e-mail from Bob Fronczak on safety is the viewpoint of AAR, and that any questions regarding this should be directed to him.

Lisa stated that the topic group cannot take one stakeholder’s statement and assume that DOE and the whole topic group agrees with that stakeholder. Bob responded that at the last TEC meeting, the topic group heard from Ray English, Jay, Alex, and Gary Lanthrum on how they were loathe to tell the railroads which routes to use. Jay responded saying he did not say he was “loathe” to tell the railroads, but rather DOE will work with railroads on route identification. Jay stated that the Routing Principles were meant to be reviewed by the topic group for their consideration but this call is not the appropriate agenda for this discussion at this time.

Bob stated that the State of Nevada looks at a suite of routes as being routes to Caliente that go through Las Vegas and routes to Caliente that do not go through Las Vegas. Using the suite of routes approach raises issues for the State of Nevada and therefore, Nevada would like to carry forward the preferred and secondary routes or some ranking of routes in the suite of routes discussion.

#### **Definition of a ‘Suite of Routes’:**

Before the actual discussion took place, Lisa thanked Jay for all of his hard work with the topic group and wished him luck with his new endeavors. Lisa commented that Alex is a great choice to lead the topic group because of his historical background working with routing issues.

Lisa reviewed the comments that were received on DOE’s and the SRG’s “suite of routes” definition. Lisa had two points to make about Bob Fronczak’s comments. Bob Fronczak’s comments were that he did not want a suite of routes to be described as safe and secure because that would imply other routes are not safe and secure. Lisa had already stated earlier in the call that she believes Bob misread the definitions as the definitions are describing the shipments as safe and secure not the routes. The second point is that DOE would most likely want to describe their routes as safe, secure, efficient and merit public confidence. Lisa stated that she thought Bob Fronczak’s comments may be misdirected in this instance.

Ruth Weiner also had a comment on the definitions (via e-mail) that stated the simplest definition of a suite of routes is a set of alternate routes including more than one route from a particular origin to a particular destination. Lisa stated that she thought Ruth was saying that a suite of routes is all routes with some that are acceptable and some that are not acceptable. This may not be helpful for the topic group to narrow down an actual suite of routes.

Lisa stated that the SRG vision is that all the routes in the suite of routes would be equally safe, secure and acceptable. However, there might be preferences for routes because of the implementation of 180(c). For example, there might be four or five highway routes that are acceptable through Illinois, but because of the time and expense

of preparing the routes for 180(c), the routes may be narrowed down to two routes by highway through the state.

Lisa asked for any comments from participants on the call to discuss the SRG's "suite of routes" definition. Before this discussion took place, Cort Richardson wanted to qualify what Lisa had just stated about the SRG vision of routes. Cort stated that if a suite of routes is a collection of routes that are all of equal merit, there may be an issue in the Northeast with the three leg routing system. The Northeast may not be able to have more than one route in the initial leg stage that could be considered safe and secure and meeting all necessary criteria. Lisa responded that Cort's concerns are embedded in the definition. For example, the FRR routes depict that there are very few options for the first or initial leg.

Lisa continued the actual discussion of the "suite of routes" definition by stating that the definition was a collaborative effort by three of the regional groups. Scott Field stated that this definition has not been necessarily been approved by the states. Scott Palmer commented that the railroads are going to have a problem with the word "safe" in the definition. The railroads are going to claim that any route used is considered safe or the FRA would shut down the railroads. Scott suggested that risk categories be assigned for different types of track, cities, or events that routes go through. Certain events, situations, etc. increase risk such as dark territory and lesser classes of track. One of the issues the topic group needs to look at is which routes have the lowest risk. This would allow the topic group to select the safest routes. Lisa commented that she did not understand the objection to the term "safe." Scott Field stated that from the railroads' perspective if the topic group picks routes that are safe then it implies all other routes not picked are unsafe. Using this logic, from a public relations standpoint, the railroads are not going to be able to say that the selected routes are safe.

Bob Halstead commented that Nevada is questioning what happens at the operational phase concerning routing. For example, if on any given day DOE or a railroad dispatcher can use any route in a suite of routes and all the routes are equally acceptable, Nevada does not agree with this approach. For Nevada, a suite of routes approach is to define the routes to be used when the primary route is not available. Bob stated that if all the routes in a suite of routes are equally acceptable, then the principles of the HM-164 highway rules and the NRC safeguard rules are being disregarded. Lisa asked Bob if the same type of process [TRAGIS] that the CSG-MW used to define routes was used by the topic group, then would only the top scorer be considered the primary route and all other routes would be secondary. Bob responded that routing criteria is not just output from RADTRAN. The methodology in HM-164 is more sensitive to unique local conditions and other factors not easily quantified.

Mel Massaro suggested a progression of choices for routes. Bob stated that Nevada thought that is the way routing would occur. Cort commented that there should be a way to pull together both perspectives of a natural hierarchy of routes, and the general standard that routes within a suite are all safe. Using Las Vegas as an example, Cort asked Bob if it would be acceptable to have a route go through downtown Las Vegas under any conditions. Bob responded that there probably is not going to be an acceptable route through downtown Las Vegas. Alex commented that while HM 164 is a regulation characterized as avoiding population centers, this is a highway truck regulation not a rail

regulation. DOE has determined that using HM 164 is not the correct approach for rail routing. Alex also stated that the topic group needs to keep in mind that railroads move a lot of hazardous material freight through highly populated and rural areas. In addition, the FRA PHMSA rulemaking could be very instructive in regards to hazardous material routing. Bob responded that in the Yucca Mountain Final EIS one third of the shipments to Yucca Mountain are going through downtown Chicago. Bob asked if this is a principle of routing the topic group should follow. Lisa stated that it is not productive to go back to the EIS and make the assumption that DOE is going to use those routes in future updates to the EIS.

Lisa reviewed what the CSG-MW did in their analysis of routes. HM 164 was used as an application to rail routes to avoid population centers like Chicago but that was not the case as the routes were selected. Almost all the high scoring routes were those that ran through downtown Chicago. Another example is the I-80 corridor. While I-80 is a good route across most of the country, the part of I-80 near the Illinois and Indiana border is a dangerous route. The conclusion that the CSG-MW reached was that there is a mechanism in place for states like Indiana and Illinois not to use that part of I-80 as a route by designating another route.

Bob stated that there are two fundamental beliefs about how a suite of routes is defined. One belief is that a suite of routes includes alternate routes to be used only when the primary route is not available. The other belief is that a suite of routes includes several routes that are equally available to shippers and carriers. Lisa asked Jay, Judith, and Alex to comment on which belief DOE supports. Jay stated that DOE supports the belief that a suite of routes includes several routes that are equally acceptable. There are no distinct primary or secondary routes. Scott commented that this is different from what was heard by the SRGs in the past. Judith commented that DOE is looking at a set of routes that meet certain conditions. DOE's definition does not state the route has to be safe but that the shipment has to be conducted safely. This is when operational considerations of routing come into play. The key is to try to balance the factors, criteria, etc. to allow enough flexibility in routing. Alex commented that what he said during the WIEB meeting was once DOE does the assessment of viable routes, the routing issues will resolve themselves. Alex also stated that Cort's point of there being only route in or out from certain points in the Northeast is accurate. DOE is not going to waste time trying to pick routes that do not make sense for the sake of having alternatives. Cort commented that Alex's remark was not included in Scott's original WIEB notes.

Cort stated that the topic group does not know at this time all the different alternative routes that could be considered safe. Judith agreed and stated that the railroads have information about their systems that DOE does not have at this time. Cort stated that TRAGIS will evolve over time as Paul Johnson gets more input about specific rail conditions. Paul concurred with Cort's statement. Lisa stated that ultimately the route selection outcome is going to depend on what the topic group wants TRAGIS to do. Bob asked Paul how the rail shipments are timed and validated in TRAGIS if time and distance become the single most important criteria. Paul responded that distance is a constant but traffic time can fluctuate. Paul has a mechanism right now in TRAGIS that simulates transit time but he plans to add more accurate data in TRAGIS. Paul has been able to get some actual transit time data from railroad sources. Lisa commented that operational efficiency is one of the Routing Principles and this may be a good topic to

discuss during the TEC meeting in July. Randy Coppage stated that AAR publishes on a weekly basis the average train speed of the Class I trains. Bob stated that he is interested in specific route times as the averages do not reflect specific route times. Paul responded that some issues to consider are: each line is specific in terms of how much traffic is on it; physical characteristics of the track (i.e., single track, double track); type of signal system; and frequency of passing. All of these considerations affect the trains' speed on the track. Bob stated that DOE will need to increase or maximize their capacity utilization factor for their casks and dedicated cars. In addition, Bob stated that DOE will most likely have contracts with railroads that will have delivery time objectives. Jay stated that these details are more operational in nature and it would be better to discuss at the TEC meeting with the entire topic group present.

Lisa asked Jay if everyone received the WIEB notes. Jay and Michele confirmed that the notes were sent on June 14<sup>th</sup>. Michele will resend the WIEB notes to Lisa via e-mail. Lisa asked if the topic group needs to vote on whether there needs to be more specificity in the 'suite of routes' definition. Bob commented there is a consensus that there is a conflict. The conflict is whether a suite of routes is a tool to be used for picking and ranking routes based on their safety, population avoidance, and their security characteristics or if a suite of routes is a group of equally, acceptable routes that can be used at any time. Jay suggested that the topic group focus on the basic definition description. The additional SRG information concerning "initial leg" in the definition is too detailed. Lisa stated that the SRGs developed a definition because a "suite of routes" is too generic and does not help the states determine the number of routes coming through their states or which routes would be used in advance to prepare the routes. Scott Field stated that there is a disconnect between the SRGs and DOE. The SRGs are trying to look at the operational end of routing in terms of what the routes will look like when shipments start and DOE is not ready to confirm at this time what the routes look like.

Jay responded that DOE does not know route specifics at this time. Lisa commented that DOE should place as much emphasis on transportation as it does on developing a site. That is, just as it doesn't make sense to have a transportation system without a final destination, it doesn't make sense to have a site with no way to transport the waste to it. She added that, while DOE may not be able to make final decisions on specific routes at this time, the department should be able to decide on the *way* shipments are going to be conducted. DOE can then put those plans on the shelf so that they'll be ready to go if shipments become necessary in the next few years (in light of legislation that could identify an interim site before Yucca Mountain is operational and routes could be needed sooner than required for a 2017 opening date). Judith commented that DOE agrees with Lisa comments that planning needs to happen now. Judith also stated that this call has been a helpful discussion to DOE to understand where the disconnects are between the stakeholders and DOE. DOE needs to review their information. If there is time before the TEC meeting in July, Lisa stated that she would like the topic group to submit comments on the two standing definitions or other issues that are important and should be added to the definition.

Jay stated that there are different levels for the "suite of routes" definition. He suggested that the topic group start at the top level for a general definition and then work their way down via comments submitted to Jay or Lisa and discussions at the TEC meeting. Bob asked if there should be a purpose statement in the definition. Lisa asked for volunteers

to write the purpose statement. Cort commented that there is a third choice for a definition which is a working definition. The working definition would start as a fusion of DOE's and the SRG's definition but qualified with another paragraph or provision which states what must be done in order to enact the suite of routes and move it to the operational phase.

Lisa asked Cort to write the purpose statement. Lisa asked Michele how long in advance the purpose statement is needed in order to distribute to the topic group before the TEC meeting. It was determined that July 9<sup>th</sup> would give the topic group members enough time to provide comments before the TEC meeting.

Jay announced that all topic group members' comments should be sent via e-mail to Jay, Alex and Michele. All comments will be compiled and distributed to topic group members for their review before the TEC meeting.

### **July TEC Meeting:**

Jay stated that Jane Beetem had submitted suggestions for the topic group's agenda at the TEC meeting. Jay will forward Jane's ideas to the topic group members. These ideas included providing overlay maps of previously used routes with routes identified by regional groups. Jane commented that looking at historical data would allow the topic group to see if the suite of routes definition is valid and whether the previous routes meet the DOE's routing principles.

Jay stated that the topic group will start their discussion at the TEC meeting with the suite of routes definition. Topic group members can submit additional suggestions for agenda items for TEC to Jay and Alex via e-mail. Bob Halstead commented that he is still concerned about the TEC meeting scheduling conflict with the Security Topic Group and the Routing Topic Group meeting at the same time in the afternoon.

Scott stated that someone from the last TEC meeting suggested that there be a presentation from the railroads either AAR or UP. Jay stated that there was a presentation from a railroad at the Pueblo TEC meeting. Bob suggested that DOE have NRC give a presentation from their perspective of routing evaluation.

### **Action Items:**

1. Cort Richardson will write a purpose statement for the suite of routes definition and submit to Jay and Alex.
2. Jay will provide Jane Beetem's agenda ideas for TEC for the topic group
3. Michele will send Ralph Best a copy of the meeting minutes from the May 31<sup>st</sup> telecom
4. Michele will send Lisa Janairo the WIEB notes